

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of:)	
)	
Digital Broadcast Content Protection)	MB Docket 02-230
)	
Implementation of Section 304)	CS Docket No. 97-80
of the Telecommunications Act)	
of 1996)	
)	
Commercial Availability of)	
Navigation Devices)	
)	
Compatibility Between Cable Systems)	PP Docket No. 00-67
And Consumer Electronic Equipment)	

COMMENTS OF TIME WARNER INC.

Sandra Aistars
Time Warner Inc.
75 Rockefeller Plaza
24th Floor
New York, NY 10019

Steven Teplitz
Time Warner Inc.
800 Connecticut Avenue
Suite 200
Washington, D.C. 20006
(202) 530-7883

Christopher J. Harvie
Michael T. Haas
MINTZ, LEVIN, COHN, FERRIS,
GLOVSKY and POPEO, P.C.
701 Pennsylvania Avenue, N.W.
Suite 900
Washington, D.C. 20004
(202) 434-7300

Attorneys for Time Warner Inc.

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TABLE OF CONTENTS

	Page
INTRODUCTION AND SUMMARY	2
I. THE COMMISSION SHOULD NOT RESTRICT DOWNRESOLUTION OF NON-BROADCAST CONTENT DELIVERED VIA UNPROTECTED HIGH- DEFINITION ANALOG OUTPUTS	7
II. THERE IS NO NEED FOR THE COMMISSION TO DEFINE A PERSONAL DIGITAL NETWORK ENVIRONMENT	10
III. THE COMMISSION SHOULD ESTABLISH CERTIFICATION PROCEDURES FOR NEW CONTENT PROTECTION TECHNOLOGIES TO BE USED WITH UDCPs OR INCLUDED ON TABLE A WHICH ENSURE THAT CERTIFIED NEW PRODUCTS ROBUSTLY PERFORM THEIR CONTENT PROTECTION OBLIGATIONS AND SEAMLESSLY INTEROPERATE WITH CABLE HEADENDS.....	13
IV. THE COMMISSION SHOULD CONFIRM THAT CABLE OPERATORS MAY GIVE EFFECT TO THE FLAG THROUGH THEIR CONDITIONAL ACCESS SYSTEMS.....	16
V. CONSUMERS SHOULD BE PROVIDED WITH PRE-SALE INFORMATION AND EDUCATION MATERIALS REGARDING THE FEATURES AND CAPABILITIES OF UDCPs	18
CONCLUSION.....	20

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COMMENTS OF TIME WARNER INC.

Time Warner Inc. ("Time Warner"), by its attorneys, submits these comments in response to the Commission's Further Notice of Proposed Rulemaking in the above-captioned proceedings.^{1/} As a company involved in the production of motion picture, broadcast television, and cable television content, the packaging of broadcast and cable television programming networks, and the retail distribution of cable programming to subscribers,^{2/} Time Warner has a unique perspective on the confluence of copyright, technology, and consumer education issues facing the Commission in these proceedings.

^{1/} *In the Matter of Digital Broadcast Content Protection, Report and Order and Further Notice of Proposed Rulemaking*, MB Docket No. 02-230 (rel. November 4, 2003) ("*Broadcast Flag Order*" and "*Broadcast Flag Further Notice*"); *In the Matter of Implementation of Section 04 of the Telecommunications Act of 1996, Commercial Availability of Navigation Devices, Compatibility Between Cable Systems and Consumer Electronics Equipment*, CS Docket No. 97-80, PP Docket No. 00-67 (rel. October 9, 2003) ("*Plug and Play Order*" and "*Plug and Play Further Notice*").

^{2/} Time Warner's motion picture and television production studio assets include Warner Bros. Pictures, Warner Bros. Television, New Line Cinema and Castle Rock Entertainment. The company's programming networks include Home Box Office (HBO) and Cinemax, as well as CNN, TNT, TBS, Cartoon Network and other Turner Broadcasting System cable networks, and the WB Network. Time Warner Cable provides service to approximately eleven million subscribers nationwide.

Digital television provides content creators, distributors, and hardware makers an opportunity to offer viewers the next generation of entertainment and information programming, and a new and richer viewing experience. Time Warner shares the Commission's goal of facilitating the digital transition and broadening consumer access to new digital devices and advanced services. Critical to the achievement of that goal are policies that preserve and strengthen incentives to invest in high-value content by promoting the deployment and use of appropriate content protection safeguards.

INTRODUCTION AND SUMMARY

The instant proceedings represent another step in the Commission's ongoing effort to transform its video programming regulatory regime from an analog-based framework to a set of rules that reflect the new opportunities and risks associated with digital technology and broadband delivery systems. Multichannel video programming is evolving from its origins as a business in which analog program signals were delivered to viewers entirely over closed transmission paths, where content security was guaranteed via bilateral contractual arrangements between content owners and cable operators, and where the prospect for retransmission of such content outside the home was non-existent or remote. Instead, multichannel video programming is becoming a business where pristine digital signals traverse a modular delivery path to consumers and the number of devices and entities exercising dominion over the program signal during its transmission to viewing monitors continues to proliferate. In this new environment, it is more difficult to address concerns about the security of digital signals and copyrighted content transmitted to viewers. Meanwhile, the depth and scope of the security concerns for content owners have expanded exponentially, due to the ease with which digital content can be replicated, and the global reach of the Internet.

The Commission's initial orders in both the *Broadcast Flag* and *Plug and Play* proceedings confronted the difficulty of having to address these new threats on a multi-lateral basis rather than via the conventional method of ensuring content security through bilateral contractual negotiations between content providers and distributors. While Time Warner does not agree with every aspect of either order, the Commission's end result represents real progress in promoting the availability of high-value digital content on broadcast television and other platforms, and fostering the proliferation of new digital devices for consumers.

In addressing the issues raised in the *Plug and Play* and *Broadcast Flag Further Notices*, the Commission should continue to adhere to its view, proffered nearly four years ago, that "comprehensive market-driven solutions" are "superior to [any] regulatory approach" toward establishing mechanisms for the protection of digital programming.^{3/} While some issues raised in the FNPRMs -- such as the encryption of digital broadcast programming by cable operators -- may be ripe for Commission resolution, others, as detailed more fully below, would benefit from continued evolution in the marketplace.

First, the Commission should refrain from imposing restrictions on the "down-resolution" of non-broadcast video programming content. There is little dispute that leaving analog outputs free from any and all content protection measures creates a significant security risk, due to the ease with which high-value content traversing unprotected analog outputs can be re-digitized and transmitted over the Internet (commonly referred to as the "analog hole"). Presently, down-resolution represents the only practicable means of curtailing the risks of the analog hole without stranding legacy digital devices already in the field that rely on analog

^{3/} *In the Matter of Compatibility Between Cable Systems and Consumer Electronics Equipment, Notice of Proposed Rulemaking*, PP Docket No. 00-67 (rel. April 14, 2000) ("*April 2000 Compatibility Notice*"), at ¶ 3.

outputs. Ideally, the threat posed by the analog hole would begin to subside as hardware makers start to equip an increasing share of their devices with secure digital connections in order to enable consumers to receive the highest-value programming.

In the interim, down-resolution could provide some measure of comfort to content owners that their most valuable content will not be available for redigitization at full resolution, and may additionally help spur device makers to decrease reliance on analog connections. As long as unprotected legacy analog devices remain in the marketplace, however, content owners should have the option of utilizing down-resolution for non-broadcast programming to mitigate the risks of the analog hole. Indeed, if they are not permitted to do so, the progress made to date on the digital transition is likely to abate, as content owners become more wary of exposing high-value content to unprotected analog outputs in an environment where high-speed broadband users are proliferating, file compression technologies are becoming more efficient and more ubiquitous, and storage drives continue to expand.

Second, the Commission also should defer defining or establishing a personal digital network environment (PDNE). The issue of whether and how to define a PDNE is a matter of considerable debate,^{4/} reflecting markedly different views on legal and policy issues among the affected industries and potentially influencing the features and capabilities of new digital devices available to consumers, as well as various business models underpinning the provision of commercial entertainment content and home network services to consumers. Not only does the Commission lack the jurisdiction to address the myriad issues presented by a government-defined PDNE, it would be premature for the Commission to attempt to resolve these issues at

^{4/} While Broadcast Protection Discussion Subgroup (BDPG) participants discussed whether the protection against redistribution over the Internet afforded by the broadcast flag should nonetheless permit redistribution within a personal digital network, they were unable to reach agreement on this issue. BDPG Final Report at 14.

this juncture, especially at the risk of inadvertently enshrining a particular business model or technical capability to the exclusion of superior alternatives. Content owners, content distributors and device makers are attempting to grapple with the business, technical, and legal issues underlying the question of whether and how to enable the use of content flexibly across various permutations of a PDNE. The Commission should allow the marketplace more time to shape solutions to those issues.

Third, the Commission should assume oversight responsibility for administering the process for identifying new content protection technologies to be used with unidirectional digital cable products (UDCPs) and/or included on Table A. Time Warner believes that Cable Labs has a significant role to play in approving secure connection and recording technologies for UDCPs, but that FCC oversight of approval and repeal of decisions relating to content protection technologies (i.e., through an appeals process which studios and other content owners/distributors could initiate) would provide all interested parties with a fair and neutral dispute resolution mechanism, and lend a useful measure of uniformity to the process. This is particularly true since most providers of new content protection technologies and interfaces are likely to seek approval of their technologies for use under both Table A, and with UDCPs.

The approval process for Table A and UDCP content protection technologies should require demonstrable confirmation of the ability of new content protection technologies for UDCPs and Table A to robustly perform their content protection functions, and to win acceptance in the marketplace. Furthermore, in the plug-and-play context, CableLabs should be allowed to perform compliance testing on UDCPs which incorporate new protection technologies, in order to ensure that the products do not cause harm to the network, cable services, or facilitate theft of services.

Fourth, the Commission should confirm that, as an alternative to embedding the ATSC flag in the broadcast signal transmission stream, cable operators may – at their option -- encrypt digital broadcast signals and virtually convey the presence of the flag descriptor via out-of-band signaling. The Commission already has endorsed providing MVPDs latitude to implement the flag via either method. Allowing cable operators to give effect to the flag via their conditional access systems would facilitate the provision of home networking services by affording MVPDs the maximum flexibility in delivering programming and other services to consumers. The analog-era rule limiting encryption of Basic tier services should not stand as an impediment to out-of-band signaling of the flag, since, *inter alia*, the concerns underlying the Commission's original decision to adopt the scrambling ban in 1994 are inapposite in the digital context.

Finally, all participants in the digital transition – content owners, programmers, MVPDs, retailers and consumer electronics manufacturers – have a strong interest in ensuring that consumers make well-informed digital purchasing decisions, and that confusion or misunderstanding regarding the capabilities and limits of UDCPs does not discourage them from consuming digital devices and services. Time Warner is working with retailers in certain markets to promote consumer awareness regarding the roll-out of UDCPs and other digital cable issues, and consumer electronics manufacturers also can play a helpful role in the ongoing effort to educate consumers about the digital transition. Accordingly, the Commission should encourage consumer electronics manufacturers to provide consumers with pre-sale information regarding the capabilities and functionalities of UDCPs.

I. THE COMMISSION SHOULD NOT RESTRICT DOWNRESOLUTION OF NON-BROADCAST CONTENT DELIVERED VIA UNPROTECTED HIGH-DEFINITION ANALOG OUTPUTS

In the *Plug and Play Further Notice*, the Commission asks whether it should prohibit down-resolution of non-broadcast digital programming content that traverses analog outputs and, if so, seeks comment on the potential impact of such a ban on (1) the availability of high value digital content; and (2) consumers with DTV equipment that only has component analog inputs.

Time Warner's motion picture and television studios, cable and broadcast television networks, and cable systems are at the forefront of industry efforts to produce, program and distribute high-value digital content to television viewers.^{5/} These initiatives clearly are succeeding in spurring consumers to acquire new digital products and services.^{6/} Having made such a strong commitment to the new features and capabilities of digital content production, programming and distribution, Time Warner has ample incentive to ensure that viewers are able to enjoy those new features and capabilities. Time Warner and other content providers,

^{5/} See, e.g., "It's All About Content," *PC Magazine*, December 9, 2003 (noting that HBO offers "15 to 20 hours a day in 1080i"); "HBO To Launch Cinemax HDTV," *Multichannel News*, December 4, 2002 ("HBO was the first to launch a high-definition pay channel when East Coast and West Coast feeds of its flagship network were made available in 1999"); "TNT Prepares for HD Explosion," *Broadcasting & Cable*, Jan. 12, 2004 (describing the effort by Turner Networks to prepare a new network-operations building to broadcast TNT HD); "TNT Gets In HD Game - TCM Next?", *Multichannel News*, Jan. 12, 2004 (describing Time Warner's announcement of plans to launch an HDTV version of Turner Network Television, as well as consideration to broadcast Turner Classic Movies in high definition); "Defining HD Role for VOD", *Multichannel News*, Sept. 8, 2003 (detailing Time Warner's work to place HD content on VOD servers); "Time Warner' Leads DVR, HD Charge," *Multichannel News*, Dec. 1, 2003 (detailing Time Warner's leadership position in the DVR and HDTV realms); "Time Warner Cable, FSN Reach HD Deal," *Multichannel News*, Nov. 24, 2003 (announcing a deal between Time Warner Cable and Fox Sports Net that will bring almost three hundred hours of high-definition telecasts of local sports events to Time Warner Cable subscribers).

^{6/} See, e.g., "Time Warner Leads DVR, HD Charge," *Multichannel News*, December 1, 2003 (Time Warner "has rolled out more DVR subscribers (250,000) and more HD customers (155,000) than any other operator. For leading the industry charge with products aimed at retaining existing customers or attracting new ones, Time Warner Cable is being honored with the *Multichannel News* Innovator Award for advanced services").

however, also must have the ability to respond to the threat to content security posed by the analog hole.

Time Warner views down-resolution as a necessary interim tool for addressing the content security risks posed by the analog hole. Clearly, the best long-term solution for addressing the problem of the analog hole is for digital device makers to deploy digital connectors that utilize effective content protection tools. Until then, down-resolution offers content owners a measure of protection against the risks of the analog hole without stranding early adopters whose hardware devices feature only analog inputs. Indeed, the Commission has itself noted that “the potential use of down-resolution could more effectively address content providers’ concerns without entirely foreclosing functionalities available to early adopters.”⁷⁷ Importantly, down resolution may also prod consumer electronics (CE) and Information Technology (IT) manufacturers to accelerate the changeover from analog to digital connectors, thereby strengthening content protection and facilitating the ability of consumers to enjoy the full features and capabilities of digitally-formatted content.

By contrast, denying content owners and cable programmers the option to utilize down resolution effectively leaves these parties with no practicable means of countering the risks associated with the analog hole, and diminishes CE device makers’ incentive to move from reliance on analog connectors to deployment of digital interfaces. If CE manufacturers defer widespread deployment of digital connectors, the number of legacy digital devices with unprotected interfaces will proliferate, thereby reducing incentives to invest in and distribute high value digital content. As the Commission noted in the broadcast flag context: “The number of legacy devices existing today is still sufficiently small that content owners remain

⁷⁷ *Plug and Play Order* at ¶ 60.

willing to provide high value content to [unprotected] outlets. At some point, however, when the number of legacy devices becomes too great, that calculus will change” – thereby threatening the continued migration of programming to digital and high-definition formats.^{8/}

Time Warner supports the decision of CableLabs to revise the Dynamic Feedback Arrangement Scrambling Technique (“DFAST”) license to require products incorporating DFAST technology to look for, recognize, respond to and pass on to subsequent authorized receiving devices an Image Constraint Token.^{9/} The Image Constraint Token will enable content owners to identify certain high value content so that the image can be constrained to a level that is consistent with the full capabilities of most current digital displays, but less than full HD quality; thereby providing some protection when the content is delivered via unprotected high definition outputs, but not perceptibly affecting the viewer’s experience. Consistent with this revision, the Commission should modify Subpart W to clarify that certain high value content may, at the election of the content owner or distributor, be encoded using an

^{8/} *Broadcast Flag Order* at ¶ 19. The risks associated with the analog hole widen and deepen due to the growth of broadband, advances in file compression technologies, and the ever-expanding storage capacities of digital devices. See “Broadband Now Reaches More Than 30% Of The World Internet Market,” *M2 Presswire*, Nov. 13, 2003 (estimating that by the end of 2003, broadband will have taken over one-third of the market); “Broadband Numbers Reach All-Time High,” Nov. 12, 2003, at <http://news.com.com/2100-1034-5106606.html> (describing the unprecedented growth of broadband during the quarter ending September 30, 2003). Recent advances in file compression technology and data storage capacity are also making file sharing easier and more dangerous for producers of high-value content. See “A Real Hollywood Horror Story,” *BusinessWeek*, Mar. 10, 2003 (detailing how new data compression and storage technologies are making it more convenient to download, store, and share video files); “Easy-to-Use Dr. DivX Video Software Enables Anyone to Create High-Quality Video Files in Seconds,” *Market Wire*, May 21, 2003 (quoting the chief marketing officer and managing director of DivXNetworks, ‘Anyone with a PC can now easily convert their home videos or bulky video files to DivX, gaining much better compression with no loss in quality. The end result is a significant savings in hard drive space and easier distribution of high-quality video files among friends and family’); “VDINSIDER: Verbatim 4X ‘Producer’” DVD+R/RW Burner Shipping, *DVD News*, Jan. 12, 2003 (describing new storage technology that is ideal for sharing large video files).

^{9/} See “PHILA & DFAST: Two Licenses that Have Wide Impact,” *Multichannel News*, November 3, 2003; “CableLabs Releases the DFAST Technology Agreement for Plug and Play Devices,” Press Release, October 20, 2003; DFAST Technology License Agreement for Unidirectional Digital Cable Products (posted October 24, 2003), Exhibit B, Compliance Rules, §§ 1.7, 2.3.

Image Constraint Token to require devices to constrain the resolution of the image output over an unprotected interface to an image having the visual equivalent of no more than 520,000 pixels per frame. Time Warner believes that the use of this function should be optional to the content owner or distributor. Entities that choose to make particular content offerings available in high definition form without down-resolution should be able to do so.

The capability to down-resolve certain high-value content traversing unprotected analog connectors has long been incorporated into the 5C license (which Warner Bros. has signed, and which reportedly over 50 CE and IT manufacturers have adopted).^{10/} The ability to utilize down-resolution during the analog to digital transition offers an important measure of protection against the security risks posed by the analog hole. Any Commission policy that altered content providers' current leeway to utilize down-resolution to protect their content would disrupt current licensing and distribution practices and incentives. Until at least such time as a clear cross-industry consensus emerges for addressing the analog hole,^{11/} the Commission should not interfere with content owners' existing freedom to employ down-resolution as a means of mitigating the risks of transmitting their content over unprotected analog outputs.

II. THERE IS NO NEED FOR THE COMMISSION TO DEFINE A PERSONAL DIGITAL NETWORK ENVIRONMENT

In the *Broadcast Flag Further Notice*, the Commission seeks comment "on the usefulness of defining a personal digital network environment (PDNE) within which

^{10/} See Digital Transmission Protection License Agreement, Adopter Agreement, July 2001, Exhibit B, Introduction, Compliance Rules, §§ 2.8, 2.19, and Exhibit B, Part 1, Compliance Rules, § 4.3.

^{11/} Cf. "Analog Hole Group Mission Accomplished, But Public Interest Groups Gripe," *Communications Daily*, January 14, 2004, at 4.

consumers could freely redistribute content.”^{12/} A Commission-established PDNE is both unnecessary and counterproductive, and would require the Commission to embark on a complicated process that would have implications well beyond the area of broadcast content. A regulated PDNE has the potential to substantially affect and alter existing video programming distribution agreements and business models. For example, while cable services today are offered principally on an individual residence basis, a government-established PDNE that authorized subscriber transmission of video content to a “personal network” beyond the subscriber’s residence could disrupt significantly existing means of distributing cable services and could affect other license provisions and geographic restrictions in content distribution agreements between programmers and MVPDs.

Commission action to define the scope of a PDNE could also implicate significant and controversial copyright law issues, such as the boundaries of fair use in the broadband digital environment. Indeed, a Commission-defined PDNE could result in protracted legal conflicts and consumer confusion, since a PDNE established by the FCC under the Communications Act would do nothing to alter the scope and limits of the fair use defense under the Copyright Act.

Presently, the range of copyright, technological, business model and consumer issues implicated by a PDNE are being actively addressed in the marketplace. There are various efforts underway, across industries, to design and deploy technologies which could facilitate a variety of distribution models and accommodate consumer interests to use content flexibly.^{13/}

^{12/} *Broadcast Flag Further Notice*, at ¶ 63.

^{13/} See, e.g., “Eight Cos. Thirsty for MoCA,” *Multichannel News*, January 5, 2004 (“Eight leading consumer-electronics companies, cable and satellite providers, technology providers and retailers have formed the Multimedia Over Coax Alliance (MoCA). . . . MoCA’s goal is to enable consumer entertainment devices -- such as TVs, digital set-top boxes, digital-video recorders , DVDs, digital VCRs, CD/MP3 players and PCs -- to seamlessly interconnect throughout the home using its existing coaxial cabling”); “Time Is Right for Home Network Appliances, Gadgets,” *Washington Post*, January 15, 2004, E1 (“Home networking was a huge theme at [CES], with hundreds of computing, electronic

These efforts, if successful, will help shape the parameters of the environment in which a consumer can use content in varying ways. The development of such technologies – and the business models they help spawn – could well eliminate the need for defining a PDNE.

By contrast, FCC explication of a PDNE would not only unnecessarily embroil the Commission in copyright law issues beyond its area of expertise, but also enmesh it in pre-existing business and licensing relationships such as the interrelationship between the scope of an individual's PDNE and any geographic market, release window, format, distribution medium, and reproduction restrictions that typically arise in connection with the licensing of program content for televised exhibition. For example, all programmers typically license content to MVPDs subject to geographic restrictions that could be affected or undermined by a Commission-defined PDNE. The geographic limitation issue is particularly important in the broadcast television context, since many broadcast programs are licensed to television stations pursuant to strict and well-defined local market restrictions.

The complexity of the copyright, technological, licensing, and business model issues at stake in defining a PDNE, the nascency of the market for home networking services, and the substantial risks that a government-defined PDNE could artificially favor sub-optimal technologies and business models, all militate against Commission establishment of a personal digital network environment. Accordingly, the Commission should heed its previous counsel that “market-driven solutions” are “superior to [any] regulatory approach,” and refrain from defining a PDNE.

and traditional home appliances debuting on the exhibit floor that are meant to be connected either wirelessly or over wires to one another and to the Internet. The limelight fell mostly on entertainment gear -- boxes for recording and playing digital TV, movies and music”).

III. THE COMMISSION SHOULD ESTABLISH CERTIFICATION PROCEDURES FOR NEW CONTENT PROTECTION TECHNOLOGIES TO BE USED WITH UDCPs OR INCLUDED ON TABLE A WHICH ENSURE THAT CERTIFIED NEW PRODUCTS ROBUSTLY PERFORM THEIR CONTENT PROTECTION OBLIGATIONS AND SEAMLESSLY INTEROPERATE WITH CABLE HEADENDS

In both the *Broadcast Flag* and *Plug and Play Further Notices*, the Commission seeks comment on the procedures and standards that should apply for approving (and repealing) content protection technologies and connectors to be included on Table A and used with UDCPs respectively, and also asks whether those procedures should be harmonized into a single process.^{14/} Time Warner believes that Cable Labs should administer the approval process for UDCPs, with a guaranteed right of appeal to the FCC for content owners and other affected parties that may disagree with a Cable Labs determination; and that the Commission should administer the Table A process, with due reference to technologies approved (or repealed) with respect to UDCPs.

With respect to content protection technologies approved under the DFAST license, Time Warner believes that Cable Labs should play a significant role by approving secure connection and recording technologies for UDCPs. Cable operators have strong incentives to adopt robust content protection technologies which foster continued innovation on the cable platform and ensure their ability to continue delivering high-value content to subscribers. Assigning CableLabs the task of vetting new outputs and content protection technologies to be used with UDCPs would create a mechanism that takes account of the twin objectives of protecting content and promoting innovation. Content owners and distributors should nevertheless retain a right of appeal to the FCC to ensure that only technologies that robustly protect content are approved.

^{14/} *Broadcast Flag Further Notice* at ¶ 61; *Plug and Play Further Notice* at ¶ 83.

The Commission's primary objective should be to ensure that the approval process for new content protection technologies accomplish the threshold purpose of robustly protecting content and seamlessly interoperating with cable systems and other video programming distribution networks. The approval process implemented by the Commission should ensure that the interests of content providers and distributors -- including motion picture studios, broadcasters, program networks, cable operators and other MVPDs -- in maintaining secure outlets for their content and ensuring compatibility and interoperability with their program services and distribution networks are given full consideration in connection with the approval of new content protection technologies for inclusion in Table A or deployment with UDCPs. To this end, Time Warner believes that any approval process should take into account marketplace adoption of a technology by major studios, broadcasters, and cable programmers as an important indicator of its appropriateness for inclusion on Table A or deployment with UDCPs. Particularly with regard to determining whether or not the licensing terms on which a technology is offered are acceptable, it is likely that technologies that have been implemented in the marketplace as a result of arms-length negotiations between the owner of the technology, and the copyright owner or the distributor of the copyrighted content will perform as intended and balance the interests of the affected parties.

Any evaluation of the efficacy of new content protection technologies must necessarily take into account the license terms on which the technology is offered, including, in particular, any associated "compliance" or "robustness" requirements for products. A robust technology that is made available on terms that fail to adequately ensure or enforce proper use, is of no more practical utility in safeguarding content than a weak protection mechanism. Because the primary purpose of any technology approved is to ensure the protection of the content being

distributed, so as to encourage the distribution of higher value content in a manner designed to benefit consumers, the relative burdens, benefits, and risks posed by the use of technology on the terms pursuant to which it is offered must be taken into account when considering qualification for Table A or use in UDCPs.

Furthermore, because content owners and distributors will not be able to restrict transmission of their content only to outputs utilizing protection technologies for which the content owner has obtained a voluntary license, content owners fear that some content protection technology providers may seek to impose onerous royalty or intellectual property obligations on content owners and distributors that trigger the use of their technology. To avert this result, the Commission should ensure that royalty payments and IP obligations are imposed only in circumstances in which users voluntarily *choose* to use a particular content protection technology.

Finally, given the nascency of the product design requirements triggered by the *Plug and Play Order* – and the substantial adverse consequences associated with approving new products that fail to perform the baseline functions of content protection and seamless interoperability – it is critical to ensure that new UDCPs and associated content protection technologies protect content and interoperate with cable systems and other digital devices as intended by the Commission’s orders. As NCTA has observed:

The importance of making this system work cannot be overstated. CE manufacturers have never before built integrated DTVs with digital cable set-top box functionality built inside, and they have never been responsible for protecting the copy controls and business models that make the cable industry work. For manufacturers, building UDCPs is an incremental business. For cable operators, getting this right is essential to cable operators’ entire core business.^{15/}

^{15/} *In the Matter of Implementation of Section 04 of the Telecommunications Act of 1996, Commercial Availability of Navigation Devices, Compatibility Between Cable Systems and Consumer Electronics Equipment*, CS Docket No. 97-80, PP Docket No. 00-67, Petition for Reconsideration of the National Cable & Telecommunications Association (Dec. 29, 2003), at ii.

Accordingly, CableLabs should be allowed to perform compliance testing on UDCPs which incorporate new content protection technologies – as agreed in the DFAST/PHILA licenses – to ensure that products do not cause harm to the cable network (or services carried over that network) and do not facilitate theft of service or content.

IV. THE COMMISSION SHOULD CONFIRM THAT CABLE OPERATORS MAY GIVE EFFECT TO THE FLAG THROUGH THEIR CONDITIONAL ACCESS SYSTEMS

The *Broadcast Flag Further Notice* asks whether cable operators “that retransmit DTV broadcasts may encrypt the digital basic tier in order to convey the presence of the ATSC flag through their conditional access system.”^{16/} The Commission has agreed that “MVPDs should have the latitude to implement the flag as appropriate for their platforms, whether it be through direct pass-through or by effectuating the flag’s intent through their own conditional access systems.”^{17/} DBS providers already have leeway to convey the flag either by passing through the RC descriptor embedded with the unencrypted broadcast programming stream, or by encrypting the digital broadcast services and conveying the flag through out-of-band signaling. Likewise, cable operators should have the same flexibility to effectuate the flag by encrypting digital broadcast signals carried on the entry-level Basic Service Tier (BST) and conveying the RC descriptor out-of-band, notwithstanding the analog-era rule limiting encryption of BST services, should they desire to do so.

The public policy concerns animating the Commission’s decision to adopt the scrambling ban for analog BST services in 1994 are not applicable in the context of digital cable services. The Commission prohibited encryption of BST in part so that consumers who

^{16/} *Broadcast Flag Further Notice* at ¶ 59.

^{17/} *Broadcast Flag Order* at ¶ 58.

believed that they had purchased cable-ready sets would not be forced into purchasing a set-top box merely to receive local broadcast signals retransmitted on the basic tier.^{18/} The ban also reflected “the fact that cable operators had previously generally not scrambled” analog signals carried on the basic tier.^{19/}

Neither of these concerns are present in the digital context. Presently, cable subscribers typically do not have an expectation – or the capability – of receiving digital cable services in the clear or without a set-top box. Going forward, all digital television sets designed to receive digital cable services (including UDCPs produced in accordance with the plug and play requirements) will have to incorporate – or connect to – some decryption capability in order to receive digital cable services. Thus, unlike the analog context, digital cable subscribers lack the expectation and ability to receive digital cable services without some form of operator-supplied decryption capability – even in circumstances where they purchase a “cable-ready” UDCP at retail.

While allowing encryption of digital basic services at the cable operator’s option would not implicate the concerns that prompted the ban on BST scrambling in the analog domain, it would facilitate out-of-band provisioning of the broadcast flag via operators’ conditional access systems, and thereby facilitate flexibility in managing the cable plant.^{20/} So long as such out-of-band signaling of the RC descriptor gives full effect to the intent and purpose of the flag, MVPDs should be free to convey the flag in this manner. Accordingly, the

^{18/} *In the Matter of Implementation of Section 17 of the Cable Television Consumer Protection and Competition Act of 1992: Compatibility Between Cable Systems and Consumer Electronics Equipment, Notice of Proposed Rulemaking*, ET Docket No. 93-7, (rel. May 4, 1994) at ¶ 49.

^{19/} *April 2000 Compatibility Notice*, at ¶ 17.

^{20/} *In the Matter of Digital Broadcast Content Protection, Report and Order and Further Notice of Proposed Rulemaking*, MB Docket No. 02-230, Reply Comments of National Cable & Telecommunications Association at 5-7.

Commission should confirm that a cable operator may implement the broadcast flag via encryption and conveyance of the flag through its conditional access system, notwithstanding the restrictions of 47 C.F.R. § 76.630.

V. CONSUMERS SHOULD BE PROVIDED WITH PRE-SALE INFORMATION AND EDUCATION MATERIALS REGARDING THE FEATURES AND CAPABILITIES OF UDCPs

Throughout proceedings implementing Section 629, Time Warner has consistently stressed the importance of developing consumer education labels and materials that are simple to understand, consumer friendly and not misleading.^{21/} The digital transition can proceed smoothly only if consumers are provided with all the relevant information they need regarding the capabilities and functionalities of UDCPs.^{22/}

The *Plug and Play Order* requires CE manufacturers and importers “in appropriate post-sale material that describes the features and functionality of the product” to inform consumers that 1) the products made available pursuant to the DFAST license and regulations applicable to UDCPs will not support all of the functionality of digital cable services (such as interactive services, on-demand services, and enhanced electronic program guides) without the use of a set top box; and 2) consumers must obtain a CableCARD from their cable operator in order to access digital cable services.^{23/} Time Warner believes that consumers also should be informed if certain digital television devices employ components that preclude replication of

^{21/} See *In the Matter of Compatibility Between Cable and Consumer Electronics Equipment*, PP Docket No. 00-67, Comments of Time Warner Cable (May 15, 2000) at 15-19; see *id.*, Petition for Reconsideration of Time Warner Cable (November 27, 2000) at 1-9.

^{22/} *April 2000 Compatibility Notice* at ¶ 9 (noting importance to digital transition of ensuring that “consumers have a clear understanding of the capabilities of the digital television receivers that they purchase”).

^{23/} 47 C.F.R. § 15.123(d).

all the enhanced features of some digital cable programs (due to, for example, dependence on analog inputs or outputs).

Providing consumers with sufficient pre-sale education regarding the functionality of devices subject to plug and play regulations is the next logical step in arming consumers with the tools they need to make sound purchasing decisions in the digital environment. Time Warner itself has begun to work with retailers in certain markets on consumer education initiatives in connection with the roll-out of digital cable-ready sets^{24/} and other UDCPs, and there are other ongoing efforts in this area throughout the cable industry. CE manufacturers should be formally enlisted into these cross-industry consumer education efforts as well -- through product literature and trouble-shooting guides -- since it is the functionalities and capabilities of their products that are at stake. Hardware makers should not only include such information in product packages, but should assist retailers in providing pre-sale education scripts and flyers for use in contacts with consumers considering purchases of UDCPs.^{25/}

^{24/} See "Plugged: Time to Play," *Multichannel News*, December 1, 2003 ("To help educate consumers . . . Time Warner Cable is encouraging its division employees to reach out to local retailers to communicate with them about digital-cable ready").

^{25/} See *In the Matter of Compatibility Between Cable and Consumer Electronics Equipment*, PP Docket No. 00-67, Petition for Reconsideration of Time Warner (November 27, 2000) at 8:

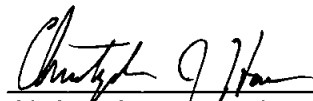
"Common sense dictates that if these rules are to successfully protect consumers, not only must adequate information be developed to afford a clear understanding of the capabilities of any digital television receivers or devices, consumers must have ready access to this information prior to the time of their purchases. When a consumer is making his/her decision to purchase, relevant information should not be hidden on the bottom or back of devices, or buried in owners' manuals that are not available until the devices are taken home and unpacked . . . Ideally, there should be clear, concise point-of-purchase displays in plain, nontechnical language explaining which features each device does and does not offer."

CONCLUSION

For the reasons set forth herein, the Commission should

- Decline to prohibit MVPD activation of down-resolution for non-broadcast programming;
- Refrain from defining a personal network digital environment;
- Establish certification procedures for new content protection technologies to be used with UDCPs and included on Table A which ensure that new products robustly perform their content protection obligations and seamlessly interoperate with cable headends;
- Confirm that, should they choose to do so, cable operators have the flexibility to give effect to the broadcast flag by encryption and conveyance of the RC descriptor out-of-band, notwithstanding the analog-era rule limiting encryption of BST services; and
- Ensure that consumers make well-informed digital purchasing decisions by enlisting consumer electronics manufacturers to provide consumers with pre-sale information regarding the capabilities and functionalities of UDCPs.

Respectfully submitted,



Christopher J. Harvie
Michael T. Haas
MINTZ, LEVIN, COHN, FERRIS,
GLOVSKY and POPEO, P.C.
701 Pennsylvania Avenue, N.W.
Suite 900
Washington, D.C. 20004
(202) 434-7300

Attorneys for Time Warner Inc.

Sandra Aistars
Time Warner Inc.
75 Rockefeller Plaza
24th Floor
New York, NY 10019

Steven Teplitz
Time Warner Inc.
800 Connecticut Avenue
Suite 200
Washington, D.C. 20006
(202) 530-7883

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